GARDEN AND FOREST.

PUBLISHED WEEKLY BY

THE GARDEN AND FOREST PUBLISHING CO.
[LIMITED.]

OFFICE: TRIBUNE BUILDING, NEW YORK.

Conducted by . . . . . Professor C. S. SARGENT.

ENTERED AS SECOND-CLASS MATTER AT THE POST OFFICE AT NEW YORK, N. Y.

NEW YORK, WEDNESDAY, MARCH 14, 1888.

TABLE OF CONTENTS.

PAGE.

EDITORIAL ARTICLES:—The Future of our Forests. Hardy Rhododendrons. Sir Joseph Hooker Tribute to Asa Gray . . . 25
Laws alone Cannot Save our Forests . . . *J. B. Harrison.* 26
Landscape Gardening, III . . . *Mrs. Schuyler Van Rensselaer.* 27
The Suburbs in March . . . *Charles Eliot.* 27
California Christmas Flora . . . *C. L. Anderson, M.D.* 28
FOREIGN CORRESPONDENCE:—London Letter . . . *William Goldring.* 28
Palms for House Decoration . . . *Robert Craig.* 29
A View in Central Park (with illustration) . . . 30
PLANT NOTES:—Lilium Parryi. A New Morning Glory. Some Hardy Wild Flowers. Phajus tuberculosus. New Vegetables . . . 30
Aquilegia longissima (with figure) . . . *Sereno Watson.* 31
A Weeping Beech (with illustration) . . . 32
CULTURAL NOTES:—Chrysanthemums. Asparagus plumosus. Chamæcyperissus obtusa. Magnolias. Covering Bulbs . . . 33
Streptosolen Jamesonii. Mulching Shrubbery Beds . . . *Wm. Falconer.* 33
Grapes for Home Use . . . *E. Williams.* 34
THE FOREST:—The Hardwood Forests of the South . . . *Karl Mohr.* 34
Acacia decurrens . . . 35
RECENT PUBLICATIONS:—Manuel de l'Acclimateur. A Manual of Orchidaceous Plants. Handbüch der Coniferen . . . 35
RECENT PLANT PORTRAITS . . . 36
PUBLIC WORKS:—A Park for Lisbon . . . 36
FLOWER MARKET:—New York—Philadelphia—Boston . . . 36
ILLUSTRATIONS:—A View in Central Park . . . 30
Aquilegia longissima, drawn by C. E. Faxon . . . 31
A Weeping Beech . . . 32

The Future of Our Forests.

THE forests of the United States play an important part in the economy of the nation. Their annual product far exceeds in value any of our great staple crops of the field. The gold and silver mined in the country is insignificant in value compared with the money value of the forest crop. It is difficult to picture the commercial and agricultural ruin which would follow any general disturbance of the productive capacity of our forests. No other country could supply us with the material we should thus lose, and we should lose, too, something more important even than the material they yield. Forests are often much more than storehouses of growing timber. They are essential in some parts of the country to insure the integrity of mountain slopes and the preservation of important rivers; and the destruction of mountain forests is invariably followed sooner or later by serious physical calamities.

The forests of this country are rich, varied and extensive. They still contain vast stores of many valuable timbers. In some of the most important forests serious inroads, to be sure, have already been made, and the practical extermination, from a commercial point of view, of some of our most valuable timber trees, now seems inevitable. Much of our country nevertheless is perfectly suited in soil and climate to rapid and vigorous tree-growth. The forests which once extended in an unbroken sweep from the Atlantic to beyond the Mississippi and which still cover the great mountain ranges facing the Pacific, clearly show the capacity of this country to produce forests unequaled in value by those of other parts of the world. It is only in the interior portions of the continent, insufficiently supplied with moisture, where the forests are scanty or altogether wanting, that their reproduction and extension offer any serious difficulties. Everywhere outside the dry belt, forests can be grown and extended with ease and rapidity if the simplest laws of nature are observed. And there is land enough in the United States suitable in every respect for forest growth, but utterly unfit for agricultural use, to supply with forest products any possible population this country can contain.

But in spite of these natural advantages, in spite of the variety and value of our forests, all thoughtful persons familiar with their present condition and the dangers which threaten them under existing social conditions, must be filled with apprehension at the almost inevitable destruction of their productive capacity.

Americans are still surprisingly ignorant in regard to their forests and the simplest laws which should govern their management. This indifference is astonishing. We cut recklessly and often needlessly; and often fail to cut when cutting is essential. Fires are allowed to run unchecked year after year through the forest or to sweep over land upon which new forests would naturally appear. Cattle and other domestic animals range at will through the woods, injuring trees and exterminating seedlings. Our civilization and our foresight as shown in the care of our forests, is the civilization and the thrift of France two centuries ago. In no other civilized nation of the world are forests so recklessly managed.

Americans are impatient of any restraint or interference in the management of their property. And yet unless American land-owners, like the land-owners of nearly every other civilized people—Great Britain now being the only important exception—are willing to submit to laws, regulating under proper official control the cutting of their forests and the use of their land for agriculture or forest, according to its quality, we must not expect to keep up our forest supplies. These supplies are still enormous, but no forests, whatever their extent or richness, are inexhaustible. As one of the wisest observers of all social problems and one familiar, too, with the requirements of the forest has pointed out in another column of this issue, the condition of public sentiment required to make a proper management of our forests possible, will develop slowly. Americans as a nation need instruction in the laws which govern forest growth and forest management. This lesson they will not learn readily or quickly, and it is probable that they will not learn it thoroughly until compelled to by dire necessity.

Hardy Rhododendrons.

THE cultivation of hardy Rhododendrons, especially varieties of the race which English gardeners have produced by crossing the American *Rhododendron Catawbiense* with different Himalayan species with highly colored flowers, like *R. arboreum*, has greatly increased in this country of late years. Many Americans, probably, first learned the beauty and value of these plants for ornamental gardening at the Centennial Exhibition in Philadelphia, where an English nurseryman displayed under canvas a large and well arranged collection of the best varieties. That we know so much about these plants here, and have learned which can and which cannot be successfully grown in the United States, is very largely due, however, to the experiments in Rhododendron culture long carried on by Mr. Hunniwell in his beautiful gardens at Wellesley, in Massachusetts.

The cultivation of these Rhododendrons is very simple. They thrive best in deep peaty soil, and when placed so as to escape the stimulating influence of the warm sun of early spring. Impatient of drought, Rhododendrons in this country give the best results when planted in situations which never become thoroughly dry in summer, like the borders of ponds or swamps, or in which they can be freely and frequently watered; and in order that they may bloom well they should not be placed under the immediate shade of overhanging trees. No plants are

more easily transplanted. The cultivation of Rhododendrons, however, must always be restricted in the United States to a comparatively small area. A limestone soil is fatal to them. All attempts to introduce them west of the Hudson River have failed, therefore, and even along its eastern bank they have never grown satisfactorily. North of Massachusetts the winters are too cold, while south of Pennsylvania they cannot support the hot, dry summers of the seaboard region. They will probably succeed anywhere in Pennsylvania east of the mountains; but some day it will be found that they can be more successfully grown in the mountains of Virginia and the Carolinas, where summer droughts and excessive cold are unknown, than in other parts of the country. Here is the true home in America of broad leaved evergreens, and here sooner or later will be seen a garden of these hybrid Rhododendrons, only surpassed in splendor by that natural garden where the native Rhododendrons spread in countless thousands over the upper slopes of the noble Roan Mountain.

The question is often asked, Which varieties of these hybrids are hardy? The following list embraces the best of those which have for many years proved perfectly hardy in the climate of eastern New England: Everestianum—with rosy lilac flowers—one of the oldest and freest blooming of the whole race, unequaled in habit and beauty of foliage; Lady Armstrong, pale rose; Charles Dickens, dark scarlet; Album elegans and Album grandiflorum, pale blush; Charles Bagley, bright red; Delicatissimum, later in flowering than many of the others—the flowers blush, tinged with pink towards the margin of the petals; King of the Purples, a free blooming variety of good habit, with rather dark purple flowers; H. W. Sargent, a very late bloomer with large trusses of crimson flowers, but rather defective in habit; Roseum elegans, an old and long tried variety of excellent habit; Purpureum grandiflorum; Mrs. Milner, crimson; Alexander Dancer, the flowers fine and large, rose, with a light centre, but the habit of the plant not good; Hannibal, a late blooming variety with rose-colored flowers.

There are other varieties no doubt which are hardy in Pennsylvania, or on Long Island where a great deal of attention has been given to the cultivation of these plants.

Sir Joseph Hooker, of all his contemporaries, can speak with the greatest authority of the position of Asa Gray, in the hierarchy of botanists. The friendship of these two men, the one English the other American, extended over a period of fifty years. The sympathy which existed between them was never broken, and to no one else did the American botanist write so constantly or so freely. The following extract, therefore, from a sketch of our associate's life, by his English friend, printed in a recent number of *Nature*, is of peculiar interest:

"When the history of the progress of botany during the nineteenth century shall be written, two names will hold high positions—those of Professor Augustin Pyrame De Candolle and of Professor Asa Gray. In many respects the careers of these men were very similar, though they were neither fellow-countrymen nor were they contemporaries, for the one sank to his rest in the Old World as the other rose to eminence in the New. They were great teachers in great schools, prolific writers, and authors of the best elementary works on botany of their day. Each devoted half a century of unremitting labors to the investigation and description of the plants of continental areas, and they founded herbaria and libraries, each in his own country, which have become permanent and quasi-national institutions. Nor were they unlike in personal qualities, for they were social and genial men, as active in aiding others as they were indefatigable in their own researches; and both were admirable correspondents. Lastly, there is much in their lives and works that recalls the career of Linnæus, of whom they were worthy disciples, in the comprehensiveness of their labors, the excellence of their methods, their judicious conception of the limits of genera and species, the terseness and accuracy of their descriptions, and the clearness of their scientific language."

Laws Alone Cannot Save Our Forests.

THE greatest obstacle in the way of a rational and practical treatment of the subjects and interests connected with Forestry in this country is the lack of thought among our people. There are reasons for this want of thought, and it is well to understand the facts of the existing condition of things. Most Americans are busy in making a living, and their energies are entirely applied and absorbed in business pursuits, so that they have no force or energy which remains unemployed, or which can be spared from the occupations which already engage their powers. There are many other persons who have not been taught or trained to think on any subject. They have no ability to represent to themselves, by the picture-making power of the imagination, any subject which has the least complexity, or any scheme of facts and of their relations to each other. They cannot consider such a subject, cannot compare or classify facts, or draw inferences from them. This want of the power of thought is one of the chief hindrances to our advancement in civilization.

The only constituency to which we can at first directly appeal in the effort for an intelligent treatment of Forestry subjects, is the class of men and women who have some power of thought, and whose personal force is not already wholly employed in affairs. They have some ability to direct their faculties to new topics, and have enough public spirit, or regard for the general welfare, to incline them to give attention to whatever can be shown to have vital relations to the interests of the community or of the nation. In order to reach this class of persons there must be a clear, vital, coherent, systematic and continuous presentation of the facts and essential relations of the subject in hand, with such variety of illustration, application and recurrence to the original central object and purpose as shall produce in the minds of readers a vivid and abiding impression and conviction of the true nature and importance of the doctrines which are to be inculcated, and of the practical objects which such teaching is intended to promote or secure. A vital, intelligent, comprehensive and iterant treatment of the subject of Forestry, and of the interests connected with it, is greatly needed.

Such treatment as this topic has hitherto received in this country has been mostly fragmentary, incoherent and vague. As it is usually handled the whole matter is too much "in the air." There is a good deal of hammering upon the importance of the general subject, without sufficient observation and comparison of concrete facts and conditions here in America. The study of European methods and results in Forestry by competent men is, of course, highly valuable, but it is not enough. It is not even the most important thing for us. Nothing can be very useful to us which is not based upon careful study of the facts and conditions which are peculiar to this country. We should have in time a system of American Forestry—we must have it, indeed, if we are to avoid serious disasters to our national interests and civilization. We cannot import and adopt ready-made European systems or methods. The Forestry of this country must be the product of growth which has, as yet, scarcely begun. It will be developed by continued and widespread observation, and by constant comparison of the results of practice. It is necessary to remind ourselves that no useful system of Forest management can be originated or created by legislative enactment. There must be considerable special knowledge, and considerable national good sense regarding the needs of this country, behind Forestry laws, or they will be not only useless but mischievous.

The work required to effect any considerable actual advance in Forestry in this country must be long and difficult. Such objects can be attained only by the development of such intelligence, thought and sentiment, in a considerable proportion of our population, as shall secure a sensible and practical treatment, in individual and collective action, of the whole matter of the relations of Forests and Trees to

human life and welfare. Whatever tends to a better understanding or appreciation of the value of Trees in their economic, sanitary or æsthetic uses and influences, will help toward the attainment of these objects.

J. B. Harrison.

Landscape Gardening.—III.

THE landscape gardener, we have seen, has a great advantage over other artists in that Nature is his helper as well as his teacher. His work is the same in substance as her own, which means that it includes in equal measure the charms of color and of form, of atmosphere and of light. It is alive, and so there lie within it possibilities of infinite variation with their sequence of ever new delights for eye and mind. And it may be as perfect in execution as in general effect, for Nature will give all those finishing touches which are impossible to the hand of man.

But does not this partnership with Nature deprive the artist of that most essential of all opportunities—the chance for self-expression? Art, after all, is not imitation but creation; and creation implies the exercise of the individual will, the revelation of the personal thought. Sometimes the artist begins within himself, sets his own ideal and finds his own conception, taking from Nature only his brute materials. The architect takes stones from her and the musician takes sounds; but she suggests no houses or cathedrals, no symphonies or chorals—scarcely so much as a shelter for the human body, scarcely more than hints of melodies and harmonies. At other times nature furnishes ideals and patterns but not the methods by which they must be transmuted into different materials. She shows us what the beauty of woman ought to be, but we must find out for ourselves how to paint it on flat canvas, how to reproduce its vitality and charm in colorless marble. Not in the one case more than in the other—not in the arts of representation more than in those of construction—can the artist copy. He must always interpret. To interpret means that he must invent; to invent means that he must use his mind; and, in truth, it is simply in using his mind that he gets the chance to be an artist. The less the beauty of his work depends upon mere imitative efforts, the more it depends upon qualities for which he is himself responsible—upon expression—the higher may be its rank as a work of art; and the more personal is the quality of its expression—the more unlike it is to the expression which other men have put into their works—the higher is his rank as an artist. Now it will be the expression of emotion, told through human forms and faces in moods of supreme intensity, moral, intellectual or physical. Now it will be the expression of a feeling for certain peculiar moods and effects of inanimate nature, or of a delight in some particular combination of colors or some especial kind of form; and again, the expression of a craftsman's pleasure in the mere problem: How can this richness of brocade, this sheen of marble, this softness of hair or cheek, be most perfectly translated into paint? It matters not what a man shows us as having been present in his heart while his brush was at work;—so long as he shows us something that was there, he is an artist. If he could make a literal, impersonal copy from nature it would not be worth the form it imitates. The only value it could have would be historical, not artistic—would be a permanent record of the perishable model. To make his work worth while as art, the artist must even the balance by putting himself into the scale.

If the landscape gardener were indeed denied the chance to do this he would merely be a more or less skillful artisan. But he is not denied it. In fact he cannot escape if he would from the necessity to use or abuse his opportunities for self-expression. It is no truer to say of him than of the painter or the sculptor that he copies nature. Though they simply work after her and he works in and with her, his aim is the same as theirs—to re-unite her scattered excellences. Theoretically he could copy her in a very wide sense of the word; but practically he can copy little more than her minor details and her exquisite finish of execution. Composition of one sort or another is the chief thing in art, and the landscape gardener's compositions are and must be his own. Through them he may express his own ideals, and through them he may reveal himself either as having or as not having clear ideals, either as knowing or as not knowing how they may be realized. If he is Nature's pupil he is also her master. "Nature," writes Aristotle, "has the will but not the power to realize perfection." Turn the phrase the other way and it is just as true: "She has the power but not the will." In either reading it means that the man can aid and supplement Nature's work. He can bend her will in many ways to his though he must have learned from her how to do it. He cannot achieve anything to which her power is unequal, but he can liberate, assist and direct that power. He could even remove her mountains if the result were worth the effort; and he can blot them out of his landscape by the simplest of devices—by a clump of trees and shrubs which she will grow for him as cheerfully as though they were to hide some deformity of his own creation. He cannot make great rivers; but he can make lakes from rivulets and cause water to dominate in a view where she had meant green grass to rule. And he can even teach her to perfect details of decoration for whose beauty scarcely a hint is found in her unassisted work. All "florist's roses," for example, are not productions to be proud of; but there are some in which, sterile though they be, Nature herself may grudge man's skill its part.

M. G. van Rensselaer.

The Suburbs in March.

IN the suburban districts of our Northern cities this is the most dreary season of the year. The snow is gone or remains only in patches, the grass is dead and colorless, the houses in their forsaken inclosures seem to shiver—all is dishevelment and nakedness for a whole month at least. In the close-built city there is no such unhappy state of things. In the open country even March has its beauty. What is the cause of the repulsiveness of the half-way region at this season and what is the remedy?

Plainly we cannot throw the blame upon the severity or fickleness of our Northern climate, for how then could the country-side have any beauty about it at this time? The cause lies rather with ourselves, who have built streets and houses through the fields and woodlands, have in this way destroyed the original beauty of the land, and have as yet done little or nothing to win back what we may of it. In these fields and pastures grew a great variety of trees, shrubs and herbs, many of which attained their perfection only in summer, while others were especially striking in winter. Of the former our public and private grounds hold far too few—our sins of omission are surprising—but of the latter almost none. Where can be seen planted about homes the richly-colored Red Cedar, or prostrate Juniper, or Mountain Laurel, or Bayberry with its clustered gray fruits, or red-twigged Wild Roses, or yet redder Cornels, or golden-barked Willows? How seldom appear White Birches or any of the American Firs and Spruces! Where do any of the trailing evergreens cover the ground at the edges of shrubberies? Where are the houses which have bushes crowded about their bays and corners, as the wild bushes crowd the field walls, till they seem to be fairly grown to the ground? Where is any suggestion of those thickets of mingled twigs and evergreen which so adorn the pastures even in March? Speaking generally, we have reduced our bits of ground to mere planes of shaven grass, from which the house walls rise stiff and unclothed. We expend thousands of dollars upon the shell of our abode, and indefinite sums upon its interior appointments and decorations; but outside we generally leave it all bare and unbeautiful, and spend only for the gaudy brightness of Geraniums in summer. No wonder March is ugly in the suburbs!

The remedy, then, is the planting of appropriate and numerous shrubs and small trees. Beware of the "choice specimens," many of which will need to be protected by boards or straw during five months of the year, and avoid the common mistake of clothing the ground with single plants. This, at

any rate, is not the way to make March door-yards less bleak. Rather may we spend the same money in planting mixed and somewhat crowded thickets, here of high and there of dwarf bushes, along the fences and close about the house. To clothe the nakedness of the ground and of the fences and buildings should be our aim. Large trees, such as our suburbs are sometimes full of, cannot do this, neither can scattered specimens of smaller sorts, neither can sparse, stalky shrubberies; we must set our bushes thickly, so as to hide the dirt beneath them, and we must either carry the grass under them as far as possible or else cover the bare earth with trailing plants. This done, our yards and grounds will appear well furnished and sheltered, and no coming March will ever chill us as this present month has done. Moreover, when summer comes, we shall find we have exchanged our Geraniums for banks of foliage set with a succession of flowers which are much more interesting and will bloom season after season. Where house-lots are small and it is desired to spend a comparatively small amount on each, the neighbors could form clubs and secure plants at wholesale rates; but under any circumstances the cost of such planting is by no means so great as to excuse us from attempting it.

Boston, March, 1888. *Charles Eliot.*

California Christmas Flora.

AFTER twenty successive winters on the northern shore of Monterey Bay, Cal., I may claim the privilege of saying something about our Christmas flora.

The winter season of this region is not so clearly defined as in more northern latitudes. The leaves of our deciduous trees forget to loosen and fall, and almost imagine themselves evergreen. And indeed some of them have carried their imaginings so far as to retain, ofttimes, the old leaves until the new ones are fully grown.

At Christmas time, however, Nature has called a halt. Some of the spring buds that were caught in the dry season, which begins about the middle of June, have expanded with our fall showers and have bloomed regardless of the season, so that at the close of the year there is often a profusion of many kinds of flowers—wild as well as cultivated. They are the arrearages of the past season, and not the beginning of the coming year.

Some years ago the editor of a horticultural journal requested me to make a list of wild flowers in bloom on January 1st. I found about forty species. Since that time I have noticed that a majority of our native plants are liable to bloom at that season; first, from delayed buds on account of the dry season, and second, from premature spring buds forced out by the warm early rains and the mildness of the season. This is frequently noticed in Pear and Apple trees—they being strangers to our climate, seem to lose their reckoning and send forth flowers out of the proper season—although such a phenomenon occurs at times in more northern regions and away from the sea coast.

So many, then, of our plants, both native and introduced, may be found blooming at Christmas-time, that a list would be very long. In fact, there are but few which might not be found in bloom in favorable years and localities.

Consequently we have at Christmas, and later, Strawberries, Raspberries and sometimes other small berries. Grapes grow and ripen until that time; Tomatoes likewise. Most of the table-vegetables are young and tender even throughout the entire winter. Some tropical trees, and those brought from south of the equator, take on an active growth. And even early in January some of our indigenous plants send forth their flowers, especially those in warm, sheltered places, such as the Willows, Alders and Hazel. One Willow (*Salix flavescens*) is quite a surprise in January, when the trees, bearing staminate flowers, are usually out in full glow, like beautiful yellowish-white clouds, on the brushy mountain sides. A Lily (*Scoliopus Bigelovii*) to be found in bloom must be sought in January; and many times have I wondered where and when the flower might be found, until I discovered it thus early in the season and before its beautifully spotted leaves were fairly expanded.

The growth of our marine flora is similar to that of our land plants at Christmas-time. If storms have not raged severely we find many nice specimens of young plants in vigorous life and maturing fruit. And the "moss-gatherer" is often well repaid by the collections made at this season. The temperature of the sea is not much below that of summer; and but for the storms, vegetable life in our bay would continue almost uninterruptedly all the year.

A little further along and the accounts for the past year are all balanced, and new leaves are opened for the new year. This change takes place at February 1st. That is our true beginning of spring. As the days grow longer the heat of the sun is stored in the fields and mountain sides, to be radiated during the clear nights, and the growth of vegetation advances slowly but surely to its culmination in May and June. The opening of spring flowers, however, is not as rapid as in the Northern States. With our cool nights and not very warm days, they come forth coyly, until quite sure that the earth has passed the tossings of Taurus and the stings of Scorpio. Then in May the lingering, bashful, yet beautiful flowers that slept over the Christmas-time, gladden the hearts of all lovers of these, the most lovely of Nature's gifts.

Santa Cruz, Cal. *C. L. Anderson, M.D.*

Foreign Correspondence.

London Letter.

Our flower markets make just now a beautiful display with forced flowering bulbs especially. Every market-garden around London is a flower show in itself. I went through one of the largest yesterday. I was astonished at the brilliant scene. One house a hundred yards long was filled with nothing but Tulips, mostly single sorts, the favorites being scarlet, yellow-edged, Duc Van Thol, also the white, rose and yellow Van Thol. These make up the bulk, and of double sorts which are not popular in the market, the leading varieties in this nursery were the Tournesols, scarlet and yellow. To give some idea of the Tulip trade alone I may mention that one grower forces nearly 200,000 bulbs. They are packed in shallow boxes as closely as they can be laid and covered with light soil. When the buds are ready to burst the bulbs are either potted four or five together, with ferns, or the flowers are cut and sent to market. Another house was filled with Lilies-of-the-Valley also in flat boxes, the finest German crowns being preferred to English, as they throw longer spikes. The best strain of the flower in the market is the Victoria, which is controlled by a grower in the Thames Valley, where this particular sort grows to a great size. The spike is longer, the bells larger and the foliage more robust than in the common kind. Throughout the winter till Lilies-of-the-Valley flower outside, a lucrative trade is done in London with these flowers, which are *par excellence* the favorite for button-hole bouquets. In this same nursery I remarked the great abundance of the old white Azalea, represented by old plants that had done duty for years and had been hacked every year to the bare stem. Of course the plants were unsightly, but they were part of the working capital of the concern and yielded abundant and profitable blooms.

Your famous *Lilium Harrisii*, or, as it is commonly called here, the Bermuda Lily or Easter Lily, is becoming very popular among the market people. They cannot, however, get enough of it at their price. A ship load of bulbs could easily find sale about our London market-gardens. I saw a grower the other day who makes a specialty of *L. longiflorum*, of which *L. Harrisii* is, of course, only a more floriferous and dwarfer variety, and of *Calla Æthiopica* (Nile Lily we call it), expressly for Covent Garden market on Easter eve, April 1st. He grows thousands of each and this represents much capital. His aim is to get them in flower on March 31st to the day. He does not want to be made an April-fool, so he has to watch the barometer. Last week was Italian weather—sunny and warm—and he had to put the temperature down; this week is Labrador weather, with frost and snow; he must put it up again or his blooms will not open when wanted. His struggles with our climate are rather comical to the looker-on, but the matter is a serious one to him from a business point of view.

The Orchid men are just now sharply watching their flowers, especially those on imported plants that have not yet bloomed in this country. They anxiously await the opening of every spike, for often a plant bought for a crown at auction, by a peculiar arrangement of its flower spots or a deepening of its color beyond the ordinary, will bring £50. Some time ago it was said that Orchids were declining in popular favor, but the contrary is the case. New buyers may be seen at the auctions, men who never grew any plant in their green-houses rarer than a Scarlet Pelargonium, and they are turning out everything to give place to the popular favorites. This explains how such enormous Orchid establishments as those of Veitch, Sander, Bull, and Williams are kept going. But not only are the growers paying increased attention to Orchids, but botanists are influenced by the fashion (I was going to say craze). At Kew one of the assistants at the Royal Herbarium has been detailed specially for the work, which, however, is

chiefly that of correcting and checking the nomenclature, and tripping up the veteran German professor, Dr. Reichenbach, who for a generation past has held the monopoly of naming Orchids. One of our Orchid specialists attached to the St. Albans establishment has been taking notes in the Orchid collections about New York and has printed them in the *Gardener's Chronicle*, the result being that our growers here do not now think that Americans are such infants in Orchid culture as was fancied. Some of your collections there described would, I imagine, take equal rank with the best in England.

The Royal Horticultural Society held its periodical meeting of committees on the 14th inst. This will be nearly the last it will hold in the aristocratic quarter of South Kensington. The annual meeting held on that day decided that the society should vacate South Kensington as too costly to maintain, and a more modest home has been found for its offices, library, etc., further eastward. A stranger who could have seen the last meeting would hardly have thought the society in a moribund condition. The crowds of horticulturists constituting the committees, the profusion of flowers, choice and ordinary, and the plentiful collection of late apples, all tended to show how active horticulture is in this great centre, and that it is not for lack of interest or sympathy that the national society is not the largest and most influential in Europe.

The advent of spring was indicated on this occasion by the large gathering of spring flowers—Chinese Primulas, Cinerarias, Cyclamens, Camellias, forced Narcissus, and, of course, Orchids. The Orchids new and rare, choice and common, were plentiful. One of the most remarkable was a new hybrid Dendrobium (*D. Chrysodiscus*), a cross between another hybrid, *D. Ainsworthi* and *D. Findleyanum*. The distinct features of each parent are plainly seen in the progeny, especially in the large jointed stems, and the shape of the flower, which is as large as those of *D. Findleyanum*, with sepals and petals white, tipped with rose, and the shallow lip adorned with a broad blotch of yellow and ruddy crimson. Another Dendrobium certificated is considered among the most remarkable of new orchids. It is called *D. nobile Cooksoni*, being a variety of that old species. The flowers are like those of the type in size and form, except that the two lateral or side petals are shaped and colored like the lip, each having a heavy blotch of the richest maroon-crimson bordered with white. It represents what botanists call an instance of "trilabellia," or thrice-lipped flowers. In other respects it does not differ from our old favorite.

A certificate was well bestowed upon an extraordinarily fine *Lycaste Skinneri*, named *Imperator*, from Sander of St. Albans. The flower is very large, the sepals broad and thick, faintly tinted with pink, the petals of a glowing crimson, and the lip of an intensely deep ruby-crimson, variegated with pure white. In contrast with this, the same exhibitor showed an exceptionally fine form of the white *Lycaste Skinneri*.

London, Feb. 25th. *Wm. Goldring.*

Palms for House Decoration.

THE species belonging to the natural order *Palmæ* constitute a truly royal class of plants, justly entitled to Linnæus' designation, "Princes of the Vegetable Kingdom." They comprise various types of beauty; some of the stronger growing kinds (as *Latania Borbonica*) being of bold and striking outlines, the embodiment of sturdy grace; others having the lightness and elegance of the finer varieties of Ferns, as *Cocos Weddelliana*, *Geonoma gracilis*, and the like. The latter varieties are of miniature growth, and from their graceful and delicate forms are specially useful for table decoration, and form objects of the greatest beauty when standing alone on pedestals or small tables. The stronger growing and taller kinds may be used to advantage standing on the floors of rooms and in the hallways, or grouped in front of mirrors or windows. The increasing use of Palms and other pot plants for decorative purposes in this country is an evidence of the growing taste of our people. Beauty of form is of a higher type than beauty of color, and the graceful outlines of a tastefully arranged group of Palms give a higher satisfaction than the immense banks of cut flowers we sometimes see. Cut flowers, used with judgment, are always welcome, but they should not be crushed together, so that the individual forms are lost, and the only effect is a mass of color. There are now over eleven hundred recorded species of Palms. I shall name only a few of those best adapted for house decoration.

Latania Borbonica, a Fan Palm, is more largely used than any other, as it grows easily and is a plant of dignified expression. *Areca lutescens* is one of the most graceful, tall growing species, with bright, glossy green foliage and rich golden yellow stems; it is now grown in very large quantities. *Areca Verschaffeltii* is not so often seen as the last named, but it is very distinct and showy, with dark, shining green foliage with a dark band through the centre of each leaf.

Kentia Canterburyana, the Umbrella Palm, in its native country attains a height of thirty-five feet, but is slow of growth under cultivation in green-houses, requiring seven or eight years to reach a height of five feet. It is valuable as a house plant on account of its tough and enduring qualities. There are several varieties, of which *K. australis* and *K. Fosteriana* are the best known. All are handsome, and capable of sustaining, without injury, as much neglect as any Palm in cultivation. *Phœnix rupicola* is a plant of exquisite grace, the finest of its genus. *Phœnix sylvestris*, the Wild Date, is of coarser growth than *P. rupicola*, but valuable for its distinct character and enduring qualities. *Raphis flabelliformis* is a plant of erect growth, having the stems covered with coarse fibre; a grand Palm for house culture, enduring either heat or cold and much neglect without injury. It is very distinct and handsome. *Raphis humilis* resembles the last, but is more delicately graceful; one of the very finest Palms in cultivation.

Ptycosperma Alexandræ, the Australian Feather Palm, is a quick, robust grower, inexpensive and useful. Although a native of the tropics, it will grow well in a temperature as low as 50°. *Seaforthia elegans* somewhat resembles this species; it is tall and graceful. Plants ten feet high and upwards are most effective, as they do not show to the best advantage when smaller. *Cocos Weddelliana* is the most elegant of the smaller Palms, with finely divided foliage, recurved with exquisite grace. Small plants are unexcelled for dinner table decoration. *Geonoma gracilis* is very similar to *C. Weddelliana*, with somewhat coarser foliage, but of the same graceful habit. It should not be grown in the house for more than a few days, as it requires an atmosphere more moist than can be given it outside of the hot-house. *Prichardia grandis* is dwarf and of slow growth, a native of the South Sea Islands, with leaves about two feet long and three feet broad. It is rare and beautiful. *Maximilliana regia* is not very plentiful yet, but is destined to grow in favor, being quite distinct and striking in appearance. It is of easy culture and one of the hardiest and thriftiest Palms under neglect. *Oreodoxia regia*, the Royal Palm, is a native of the West Indies and tropical America and a prime favorite. Tall, slender and stately, it is most effective when used in a group of lower growing species.

All the above, except *Phœnix rupicola*, *Seaforthia elegans*, *Cocos Weddelliana*, *Geonoma gracilis*, *Prichardia grandis* and *Oreodoxia regia* may be successfully grown in the house all winter if the following rules are observed: Pot them firmly in soil composed of equal parts of loam, sand and fibrous peat, with a small proportion (say, one-twentieth part of the whole mass) of charcoal. Use pots as small as possible; nothing injures Palms more than over-potting. Drain well and water freely as often as the soil gets dry. Palms are often injured by insufficient watering. The surface may be kept wet while the lower roots suffer from drought. The leaves should be thoroughly sponged with water of the temperature of 60° or 70° twice a week, and to keep away insects the water, every two or three weeks, should contain Fir tree oil in the proportion of half a gill to two quarts of water. This is, without doubt, the best insecticide at present known for keeping Palms clean and healthy. *Robt. Craig.*

Philadelphia.

"In the park I make it a point to use only native or thoroughly acclimated trees and shrubs, and avoid entirely all foreign decorative plants. For nature beautified must still preserve the character of the country and climate in which the park is situated, so that its beauty may seem to have grown spontaneously, and without betraying the pains which have been spent upon it. We have growing wild in Germany an abundance of blooming shrubs, which can be used in a variety of ways, but if we find a Damask Rose or a Chinese Lilac, or a group of such things, planted in the midst of wildness, the result is a painful feeling of incongruity; unless, indeed, they be set apart and fenced off, as for instance in a hedged garden near a cottage."—*Pükler-Muskau*, 1834.

"The simple and uncombined landscape—if wrought out with due attention to the ideal beauty of the features it includes—will always be most beautiful in its appeal to the heart."
John Ruskin.

A View in Central Park.

THE view on this page is taken from a point in the Ramble in the Central Park of this city, looking southward, and including a portion of the Terrace. Of course, it is much more than a picture of the Terrace, but it clearly shows how much this bit of architecture adds to the composition. The distant horizon line of trees has an attractiveness of its own. Nearer by are the upper Terrace lines contrasting with the masses of foliage above them. Below these are the open arches with deeper shadows, then the lower lines of the Terrace, the lake shore and the passage of water separating more distinctly the extreme distance from the middle distance. All these, with the lines of the shrubbery about the little lawn, mark the successive planes of the composition and help to bring out the gradations of light and shadow. In the Park the observer would enjoy in addition the ever varying tints of the sky which would also be reflected in the water, while he could look up to and into the leafy framework in the foreground forever without exhausting its interest. The illustration is a good example of what can be accomplished by framing in a distant object with foliage, so as to make a complete and consistent picture, and there is no reason why such planting as it shows should be confined to public parks. Many a lawn could be made the foreground of a picture quite as attractive, and it could be graded and planted so as to emphasize the interest and increase the pictorial effect of some important object, natural or artificial, and trees could be disposed about it so as to concentrate the attention which would otherwise be distracted by surrounding objects.

A View in Central Park.

"One beautiful way in which flowers can be used, especially those distinguished for the brightness and clearness of their coloring or for their tall stalks, is to plant them in moss and among wild vegetation along the edge of a brook or some other piece of water. The reflections in the water and the play of their movements thus doubled clothes with a new charm this scene which is altogether natural."—*Hirschfeld's "Theorie der Gartenkunst," Leipzig, 1777.*

Plant Notes.

Lilium Parryi, and its Habitat.—This fine Lily appears to have won its way in the ten years of its garden career to a high rank among cultivated species. The pure lemon yellow of its flowers, an unusual shade among Lilies, and their peculiar form, as well as their fragrance, combine to make it a unique species. Its range is from the springy banks and swampy cañons of the San Bernardino Mountains of southern California, where Dr. Parry discovered it in 1876 southward towards Lower California, eastward to the higher mountains of southern Arizona and thence southward, I am confident, along the western slopes of the Sierra Madre of Sonora. In these arid regions it is only by mountain brooks and springs that it can find the water its roots require, and shelter from scalding sunshine. So its habitat is the narrow sandy or peaty alluviums of these brooks, or their mossy margins, or even the ledges, over which they glide, where its bulbs are scarcely hidden from view amidst tufts of moss. Seeing it always in such wet situations I gained the impression that it would need wet soil. But northern brooks would be too cold, and with our frequent rains ordinary soil suffices for it, since I have flowered it from Dr. Parry's seed in my garden. In its native haunts, crowded upon by other plants, especially beset by grasses and shrubs, its stature is from one to three feet and the number of its flowers one to six. In cultivation I have seen these figures nearly doubled.

A New Morning Glory, *Ipomœa Pringlei, Gray*, collected in 1886 on cool, grassy hillsides near Chihuahua, and distributed among my *Plantæ Mexicanæ* of that year, was admired by Dr. Asa Gray even in dried specimens, and by him recommended for cultivation. The species is perennial from a thick root, with an annual stem, erect, diffusely branched, two or three feet high and broad, with inconspicuous leaves and flowers of the largest for the genus, three inches broad, purplish blue, with a metallic lustre, and in their throat lighter blue or nearly white. The plant is common over the hills and high plains between Chihuahua and the Sierra Madre. As seen by the traveler in those lone regions, profusely covered with bloom throughout the morning, it is a bright and pleasing object.

C. G. Pringle.

Some Hardy Wild Flowers.—One cold day in February I went to see how my plants of that tough little Orchid, *Goodyera pubescens*, were standing the weather, and found the leaves protruding from a crust of snow and ice, as fresh as in June. One can hardly understand how such a velvety, delicate looking plant can be so hardy. Although it grows in thick shade, this Rattlesnake Plantain will thrive in a sunny window of a warm winter room. Such a one I knew, and when the fire went out one bitter night it was smiling freshly in the morning, although every other plant in the collection had perished. Why has such a pretty thing as *Erigeron bellidifolium* been neglected by cultivators? I accidentally discovered that it improves under domestication. A bunch of it was left by chance in a field, where it was hoed and fertilized in the same way as the farm crop. It grew luxuriantly and blossomed profusely. I think it quite as beautiful as any of our Asters, which it somewhat resembles. It has the advantage, too, of blossoming in early spring, while most of the Asters are late bloomers. Another wild plant which is not afraid of cultivation is *Houstonia purpurea*. While not as attractive as its little sister, *H. serpyllifolia*, or, perhaps, as your more northern Bluets (*H. cærulea*) it is a striking plant, erect, branching and often more than a foot high, blossoming freely, and found naturally in high and dry soil. Our Mountain Harebell, too (*Campanula divaricata*) makes a neat addition to our list of hardy perennials. I think I may add *Shortia* to the list, although it has not been thoroughly tested in cultivation. I have little doubt, however, that it will succeed, and it can now be had in abundance, after hiding away so successfully for a hundred years, for it has been found growing by the acre on the very spot, perhaps, where Michaux makes record of it in his journal of that trying December visit to these mountains. I can hardly hope much from the pretty little *Galax aphylla*, known here as Colt's-foot, and carpeting the woods in every direction. It seems to resent all artificial nurture and apparently dies of homesickness when transplanted from its wild surroundings.

Macon Co., N. C. *F. E. Boynton.*

Fig. 6.—Aquilegia longissima.

Phajus tuberculosus.—This exquisite and rare Orchid is now in flower at Kenwood, probably for the first time in America. It is undoubtedly the most beautiful of the whole genus. It was introduced from Madagascar in 1881, and a few plants flowered in England, but for a long time I have heard nothing of it. Our plants were bought in 1882, and were gradually dwindling away until a year ago, when we thought of trying them in the hottest corner of the Phalænopsis house near the expansion tank, where the temperature in winter is never below 70°. We kept them very wet, and syringed overhead at least twice a day. Under this treatment the plants have done wonders, making larger bulbs than those imported, and the strong healthy foliage shows no speck of ravages from insects, hitherto the greatest enemy of this plant. The choice of potting material seems to be a minor consideration, as one of the plants in bloom is potted in peat, while another is on a block of wood covered with sphagnum and stands upright in a pot surfaced with moss; in both cases the rooting is all that can be desired. The habit of the plant is somewhat climbing, producing a slender rhizome, much thickened at the end to form a bulb, from the tip and sides of which proceed plicate leaves about a foot long. The flower spikes are upright, 6 to 8 inches long, bearing 3 to 6 snow-white flowers, the greatest attraction of which lies in the indescribably beautiful lip.

Kenwood, N. Y. *F. Goldring.*

New Vegetables.—The roots of the Cassava are shown by a large number of exhibitors at the Subtropical Exposition at Jacksonville, Fla. This would indicate a rather general, if not a large cultivation. Those who had used it pronounced it a grateful vegetable, the root simply pleasant and cooked as a custard. The variety seemed to be *Manihot Aipi*. *Sechium edule*, the "Chocho," cultivated in tropical America and the West Indies for the sake of its fruit, was also on exhibition and for sale. The seed germinates within the fruit, and the sprouting fruits have therefore a curious appearance. The unripe fruit is eaten boiled as a vegetable. This plant has given rise to many varieties, differing quite largely. *E. Lewis Sturtevant.*

Aquilegia longissima.*

OF the long-spurred Columbines which are peculiar to the central mountain ranges of this continent the species here figured, fig. 6, page 31, is the most remarkable. The *Aquilegia cærulea*, with blue and white flowers, and the yellow-flowered *A. chrysantha* of the Rocky Mountains and other interior ranges, are now well-known in gardens, both in their

*A. LONGISSIMA, Gray in herb.; Watson, *Proc. Am. Acad.* xvii. 317. Tall, somewhat pubescent with silky hairs; leaves green above, glaucous beneath; sepals lanceolate, broadly spreading, an inch long or more, the spatulate petals a little shorter; spur with a narrow orifice, four inches long or more.

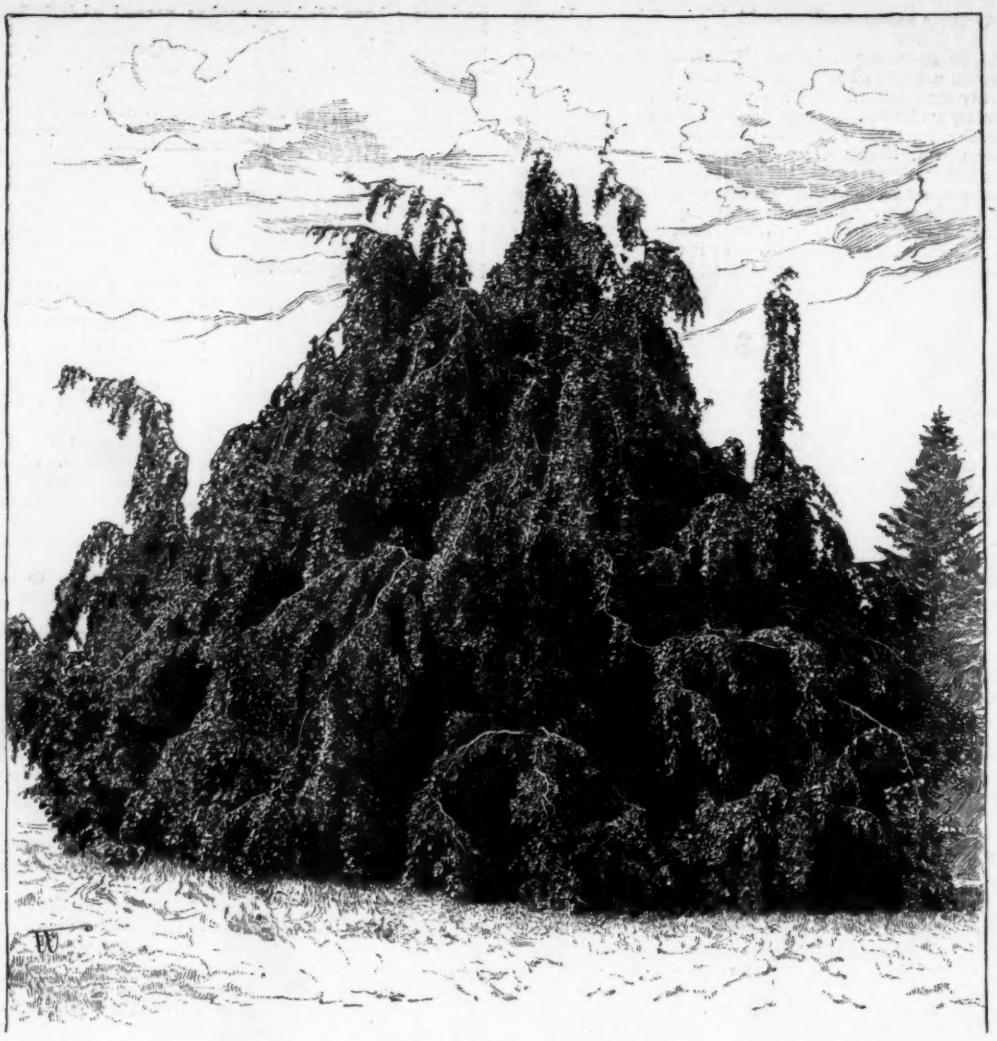

Fig. 7.—A Weeping Beech.

native forms and in the hybrids which are readily obtained from them. *A. longissima* is a still more southern species, found in the mountains bordering the Rio Grande in western Texas and those of the north-eastern provinces of Mexico. It is, indeed, probably the most southern species of the genus, inasmuch as the Guatemala habitat ascribed to *A. Skinneri* is very doubtful. *A. Skinneri* was cultivated in European gardens to some extent about forty years ago and was believed to have originated from seeds collected in Guatemala by Mr. G. U. Skinner. It has, however, been recently discovered at home in the mountains of Chihuahua, both by Dr. Edward Palmer and by Mr. C. G. Pringle, and the probabilities are that the seeds were sent from there, instead of from Guatemala, by Mr. John Potts who had charge of the Mint at Chihuahua in 1842. It is known that he and his brother made collections in that region and sent plants to England at about that time.

A. longissima is distinguished from the allied species not only by the greater length of the spur, but by its more contracted orifice and by the narrower petals. The flower opens upward, spreading widely, and is pale yellow or straw color, or sometimes nearly white or tinged with red. The plant has been raised from seed in the Cambridge Botanic Garden. It proves to be more tender than our common species, as was to be expected, but there should be no difficulty in cultivating it throughout the Southern States.

In view of the recognized adaptation of flowers and insects to each other for mutual benefit, it is an interesting question what long-tongued moths have developed side by side with this long-spurred flower, and how far the plant is really dependent upon such insects for fertilization. *S. W.*

A Weeping Beech.

The so-called weeping trees, or trees with distinctly pendulous branches, are not of the first importance in general landscape work. Their peculiarities of form are so striking that when planted with other trees they invite attention to themselves, instead of helping to increase the effectiveness of the group. A Weeping Willow on a wood border is the first thing to arrest the eye, and it seems to break the masses of foliage and belittle their effect instead of giving continuity and strength to their outlines. As individual specimens, however, these trees may become objects of great beauty and attractiveness. The Weeping Beech, a variety of the European Beech, is distinguished among them by an eccentric vigor which is seen in the sturdy upward and outward growth of some of the larger branches, a vigor which is in marked contrast with the pensile habit of the smaller branches. These trees vary greatly in form; some being tall and slender, others low and broad, and others still, assuming the most picturesque shapes. The tree in the illustration stands in the grounds of Mr. Samuel C. Jackson, in Flushing, Long Island, and in what was originally a part of the old Parsons nursery. It is forty-four years old, and its vigor is proved by its healthful appearance as well as by the dimensions it has already attained. It is about sixty feet high and the circumference of the circle where the hanging branches meet the ground is 180 feet. The trunk is 6 feet in circumference three feet from the ground, and a man standing by it is perfectly concealed from those without the circle by the thick curtain of foliage that hangs about him on every side.

Cultural Notes.

Chrysanthemums.—Those who would have good Chrysanthemums next fall must now pay attention to their stock. No puny plants will ever give good flowers, neither will plants which have been excessively propagated. Strong cuttings put in now and grown along without becoming pot-bound or starved, will make nearly as fine plants and flowers as those propagated earlier. Plants now in small pots should be removed into pots two sizes larger and subjected to fire-heat only sufficient to keep out the frost. Use at all times soil that will permit water to pass freely through it. All newly-potted plants, from the cutting benches, should be carefully shaded from the sun for a few days, until new root action is established. If it is the intention to grow very large flowers the plants should be topped as soon as they reach the height of from 6 to 8 inches, selecting the three strongest shoots to form the base of supply. If specimen plants are required, four shoots at least should be allowed to grow and each one should be tied down to a position nearly horizontal. These same shoots will require stopping again as soon as they have 6 to 8 leaves formed. If the soil is rich no additional fertilizer will be required until the summer is advanced. Purchasers would do well to obtain plants that have been grown cold and are not pot-bound. Plants should be shipped by express.

John Thorpe.

Asparagus plumosus.—Propagated by division, this plant is of less value to florists than Smilax. But propagated from cuttings, it makes bushy plants from six to twelve inches high, which are hardly equaled in beauty or usefulness for decoration. *A. plumosus* grown in this way is superior to *A. tenuissimus*, which resembles it very much, but is too thick. *A. plumosus nanus* must be propagated by seed, which is not easily obtainable. While every side shoot of *A. tenuissimus*, cut with a bit of the main shoot, will root easily, *A. plumosus* refuses to do so. It makes roots only when a bud starts into growth in soil or sand, and this is the whole secret. A young shoot first grows nearly to its full length before the side-shoots are developed, and those on the top develop first. Therefore, cut the whole shoot as soon as the upper side shoots and all those which have started about the same time with them have reached their full development—which is indicated by the darker green color—and lay the whole shoots about half an inch deep in sand in the propagating house, taking care not to bury any side shoots. After six or eight weeks most of the dormant eyes will grow and form one plant each. Let them stand undisturbed until three or four little shoots have made their appearance, when they should be potted in very sandy soil. When these plants are about six inches high they are excellent material for further propagation, and a large stock can easily be obtained in a short time, each shoot yielding from one to five young plants. *A. plumosus* and *A. plumosus nanus* are prettiest when young and before they change into their climbing habit. But the dwarf species seems to produce all its side shoots at the same time, the lower part of the stem remaining bare even with quite old plants. I succeeded once by cutting the end of a shoot away and laying the whole shoot in sand without separating it from the old plant, but the result was not entirely successful. *C. Briner.*

Chamæcyparissus obtusa is one of the most beautiful and graceful of the Japanese Conifers. We have some old plants that had fallen into a dilapidated condition, and some years ago we cut them in hard and planted them by the side of a well enriched border in dry sandy land. They have recovered splendidly and now are vigorous, bushy specimens. Others in a similar condition were also cut in and removed to a well-sheltered spot in a thinly-planted piece of woodland, and where the ground is moist and good. The result has been fully as satisfactory as in the previous case.

Magnolias.—We had a group of choice Magnolias, including *M. Thurberi* and *M. stellata*, in dry sandy land, and where the subsoil was deep sand, but they appeared to be very unhappy. The surface soil in the bed was good enough; indeed, it was good hazel loam introduced for their benefit. A few years ago we removed the Magnolias, some to our nursery ground, where the land is deep, dark and moderately moist, and some to a sheltered place on the lawn, and in which the soil is excellent. In both cases their recovery is very marked. We also have large isolated specimens of the Yulan Magnolia, some in poor, some in good soil, and in vigor of plant and profusion of bloom the balance is greatly in favor of those growing in the good soil. *W. F.*

Covering Bulbs.—If Crocuses, Snowdrops, Winter Aconites, Siberian Squills and other early flowering bulbs planted last fall were covered over with a mulching of tree leaves or rank litter in order to protect them from frost, they are now trying to thrust their whitened leaves and flowers up through the covering. If we remove the mulching we expose the weakened shoots to the piercing winds and in this way render worse what before was bad enough. These bulbs need no winter mulching, neither do Tulips, Hyacinths, Crown Imperials nor the host of other early flowering bulbous plants we set out in our gardens, except it may be a mulching of rotted leaves or rotted manure, which is meant to remain on the ground permanently, and is applied more with the view of preventing the bulbs from being heaved out of the earth by frost than as a protection against frost. It is when these plants are appearing above ground that they need protection most, but the ordinary way of treating them, is to strip them just at this time.

Streptosolen Jamesonii.

THIS is one of the best and most easily cultivated winter-blooming green-house plants we have. It is a native of South America, and was introduced to cultivation some forty years ago but soon disappeared from our gardens and was not seen again till a few years ago, when it was reintroduced. It is now quite generally distributed.

It is a small-leaved, evergreen, slender shrub, or rather shrubby vine, of vigorous growth. Its flowers are orange or flame-colored, and disposed in drooping, terminal, cymose panicles; every branch is tipped with a bunch of flowers. Its flowering period is from January to April, according to conditions under which it is grown, but usually it is in its finest condition in February. A few scattering flowers may be produced all summer long, but never a full crop nor handsome panicles.

It ripens seed freely, but the best way of propagating it is from cuttings of the young wood; these cuttings strike as readily as do those of Heliotropes or other soft-wooded plants, and if struck in spring and grown on in summer make fine blooming plants 4 to 6 feet high by the next winter. I raise a fresh lot of plants in this way every year, and keep over some of the old plants till they are two or three years old, but not more, as they grow too big for our green-houses.

I grow them in pots during the summer months, and plunge them out-of-doors. Were they planted out the plants would grow so rank and root so much that they could not be lifted safely in autumn. They are gross feeders. In potting them I use good loam, with about one-fourth part in bulk of rotted manure, and after the plants are brought in-doors I mulch them with rich farm-yard manure.

We winter our plants in the Carnation-house, where they are grouped together in a mass. The right temperature is about 50°. They get and enjoy full sunlight.

Although gorgeous plants for conservatory decoration, the cut flowers must be used in masses to be effective. In warm rooms they do not last very well. *W. F.*

[This fine plant, a native of New Grenada, was figured in the *Botanical Magazine*, *t.* 4605, many years ago as *Browallia*, a genus from which it chiefly differs in habit of growth. It is also figured by Miers, the founder of the genus *Streptosolen* (*Illustrations*, *t.* 55).—Ed.]

Mulching Shrubbery Beds.

AS soon as the snow is all gone and the weather is not frosty we go into the woods, rake up and cart home a large quantity of tree leaves for mulching shrubbery, and more especially our Azalea bed. The leaves are then beginning to soften and decay, and if at all moist, we can pack at least twice as many into a load as we could in fall. Why was this not done last fall? For two reasons: Hardy trees and shrubs have no need whatever of any mulching over winter, and it may be so much work lost, but this is not all; for in the second place, it may be the cause of much mischief by affording a lodgment for field mice, which are the most destructive rodents we have to contend with. They are especially destructive to coniferous and rosaceous trees and shrubs by gnawing away the bark around the stem at the ground level; in this way they have killed many of our Pines and Spruces. But I have never known them to attack evergreen Rhododendrons, even where these shrubs have been heavily mulched with dry leaves over winter.

The earlier we mulch our Azaleas now, the better. If de-

layed much longer the flower buds will become so prominent that the least rub against them will break them off. Put on the leaves six or eight inches deep all over the bed, and scatter a little fern, sea thatch, sedge or salt hay over the leaves to keep them from being blown about. Although this may seem to be a heavy mulching, it is none too much, and by next October it will rot down and not be an inch deep.

Summer mulching is far more important than winter mulching. By it we are enabled to grow with fair success shallow-rooting plants and many evergreens that without it could hardly survive our hot, dry weather. Mulch heavily if at all, for this is the only way to accomplish the desired result.

We use leaves only on large beds, and where we can sprinkle a little thatch over them; for small beds and individual specimens we use rough manure or thatch or salt hay alone. But in mulching trees and shrubs judgment must be used. There is no use in describing a circle 6 or 10 feet wide around the trunk of a big tree, removing the sod therefrom and mulching the ground, because the feeding roots have gone beyond that circle, and hence are not under the influence of the mulching. The way to reach them is to top-dress the ground in fall with manure and rake it off level in spring. Some writers argue that if we keep the surface of the ground well stirred by means of the hoe or cultivator in summer this answers every purpose and is better than mulching. That is well enough so far as nursery stock is concerned, but in permanent plantings, for instance in the case of isolated trees and shrubs, and shrubbery beds, loosening the surface of the ground should be avoided and mulching adopted.

I have no patience with the people who call out about the unsightliness of mulching. Mulching is repugnant only to the uneducated eye. The person who understands and appreciates the benefit to the plants to be derived from this care regards its presence with special favor. But, of course, it must be neatly applied and kept.

The mulching of trees and shrubs in summer is more extensively practiced in this garden, than, so far as I know, in any other in the country, and we are, year after year, becoming more alive to its beneficial effects. *William Falconer.*

Glen Cove, N. Y.

Grapes for Home Use.

IN response to the inquiry of your correspondent in Northern New Jersey as to the best half-dozen varieties of grapes to plant for family use to the extent of about twenty vines, I name the following and add some reasons why I recommend them.

Moore's Early—two vines—the earliest good black Grape we have. The berries are large; vines hardy, healthy, and productive. The Cottage would prove its best substitute.

Lady—two vines—the earliest good white Grape; very sweet and generally liked. The vine is hardy and healthy, but not as vigorous as many others. The berries are of good size; clusters small, and its season short because of its liability to crack on approaching maturity; but I name it because an early grape of this color is desirable.

Worden—four vines—the best early black Grape; the clusters and berries are large, and the vine is vigorous, healthy, hardy and productive. The above are all of Concord parentage, and like it tender-skinned, cracking easily when ripe.

Brighton—four vines—the best early red grape we have, all things considered. The clusters are large and handsome, berries medium, vine vigorous and productive.

Delaware—two vines—among Grapes what the Seckel and Dana's Hovey are among pears. The small clusters of small red berries ripen early. The vine though healthy and hardy is not a strong grower and does not always find a congenial soil. It is worthy of special care till it gets established and its quality atones for its lack of size.

Wilder—four vines—a large, late black Grape of excellent quality. The clusters are large and handsome; vine vigorous and productive.

Niagara—two vines—the largest and finest white Grape yet tested. Berries and clusters are large and handsome; quality fully as good as that of the Concord—Mr. Downing said better—and the vine is very vigorous and productive.

Empire State—two vines—a white grape of excellent quality, better in this respect than the Niagara, but not so large or attractive in cluster or berry. The vine is fairly vigorous and productive.

This list is of course for a special locality, but most of the vines named flourish over a wide area. Brighton, Wilder and Niagara have a little foreign blood in their veins, and are therefore more liable to mildew and rot than the others which are pure natives, but in seasons favorable to the development of the rot fungus all are susceptible to its attack unless it be Delaware. From the above list your inquirer should be able to choose six kinds, if he wishes to confine himself to that number, but he can plant them all with little risk of failure. They all thrive with me on lower ground and nearer the seaboard, and therefore in a less favorable locality. I do not name the Concord because the season is covered effectually without it. Moore's Early is equally good and two to three weeks earlier, and this is followed by Worden, which is better than either. The season of the Concord is with Wilder and Niagara. *E. Williams.*

Montclair, N. J.

The Forest.

The Hardwood Forests of the South.

THE time seems rapidly approaching when the lower Southern States will furnish the greater part of the lumber shipped from the Atlantic forest region to foreign and home markets, and will take the lead in the various industries which depend for their material upon the products of the forests. From sixty to seventy-five per cent of the area of the several States of the lower South are covered with forests which have been but little encroached upon by the axe. Well timbered countries without the Tropics have at all times been foremost in progressive and varied agriculture and industries. The history of the Old and New World gives ample support to this statement.

With the exhaustion of the forests of White Pine and the denudation of the country north of the Ohio, from the Atlantic border to the Mississippi, where stood a wealth of timber once deemed inexhaustible by men still living, the lumber interests of the country east of the Mississippi are steadily gravitating southwards, and manufacturing enterprises connected with them are seeking the same field. In some investigations made for the Census office in 1880 the writer found the lumbering operations of the great coast Pine belt confined almost solely to the larger streams and to a strip two or three miles on either side of a few railroad lines traversing the forests. A few tram-roads and canals were bringing lumber from remoter parts. But now tram-roads equipped with steam power are penetrating the depths of this forest belt in every direction with astonishing rapidity and are stripping hundreds of square miles of their merchantable timber, and thousands of acres of primeval timber lands are made available by new railroad lines intersecting the forests and helping the transport of their products to the seaboards and the inland markets of the Middle States. The stroke of the axe is now heard from the basin of one river to that of the other where but a short while ago the forest solitude remained unbroken. The shipment of timber and naval stores from the Pine forests of the lower South have doubled in the last seven years, and industrial enterprises based on timber resources have increased many fold in almost every one of the Southern States. Factories of carriages and wagons, agricultural implements, furniture, cooperage and hollow ware, and large establishments for building railroad cars have sprung up with the increase of towns and cities in the mineral districts. The development of the mines of coal and iron has occasioned a great increase of the consumption of timber and fuel. The causes which within a life-time have depleted the timber wealth of many of the Northern States are, at this moment, at work in the South with an activity outstripping that of any former period.

South-western Kentucky, western Tennessee, western North and South Carolina, Arkansas, and the northern half of the Gulf States to the Brazos River, must at present be considered as the great depositories of the timber wealth of the hardwood forest. It is from these Southern forests that the constantly increasing needs of the country are to be met. Experience has proved that timber of southern growth is not surpassed in its essential qualities by that of higher latitudes. In their fullest dimensions and their greatest variety, the most valuable hardwood trees are found in the alluvial bottomlands of the larger rivers toward their lower courses, in the valleys of a higher level, beyond the light silicious soils of the tertiary formation, in the woods covering the lower flanks of bordering elevations and in the narrower defiles of the mountains. The most extensive body of hardwood forests exists in the delta of the Mississippi and Yazoo Rivers in the State of Mississippi, covering four millions of acres, of which one-fifth are in cultivation, and in the alluvial land of the Mississippi and St. Francis Rivers in Arkansas, extending over two millions of acres with scarcely ten per cent. of cleared land. The individual trees

here attain dimensions rarely reached by the same species elsewhere, and in wealth of valuable timber trees these forests are not excelled.

Amongst the trees of the highest value and greatest abundance the Swamp Chestnut or Basket Oak (*Quercus Michauxii*) takes the first place. Often a dozen trees measuring two and one half feet in diameter and furnishing clear cuts from forty to fifty feet in length have been counted on a single acre. In quality the wood of this tree is in no way inferior to white oak, and is especially fit for all purposes to which the latter is applied, affording immense resources to the industries depending upon this Oak for their chief material. The Sweet Gum (*Liquidamber styracifolia*) is as frequent here and at its greatest perfection. It is only under these lower latitudes that the timber of this tree attains the qualities which give it economic importance. The wood, of a pleasing reddish brown tint, easily worked, of a fine grain and capable of a high polish, has lately begun to attract the attention of manufacturers of furniture and of the joiner for the interior finish of the best dwellings. Millions upon millions of feet of these valuable timbers are found in these forests, enough to supply the largest demand for many years. Of somewhat less value, the Spanish Oak (*Quercus falcata*), the Willow Oak (*Q. phellos*), the Swamp White Oak (*Q. lyrata*), are to be named, the latter hardly inferior in quality to white oak. To these the Swamp Maple, Water Elm (*Ulmus elata*), Honey Locust, Cottonwood, Pecan, Sassafras and Persimmon, are to be added, the two last reaching dimensions that entitle them to rank among useful timber trees. Most of the hardwood trees peculiar to the lower South, such as Magnolia, Red Bay (*Persea Caroliniensis*), White Bay (*Magnolia glauca*), Sourwood (*Oxydendron arboreum*), and others of lower rank in size, finding at present but little appreciation, will, with better knowledge of their quality, add a variety of useful material for miners' purposes, for the mechanical arts and for decorative joinery.

Difficult of access and remote from active industries, these hardwood forests, still but slightly encroached upon, may be regarded as the chief source of supply for the country's needs for many years to come. Their disappearance is, however, a matter of comparatively short time. Covering lands of greatest fertility, adapted to the cultivation of the chief staple products of this region, their reclamation for agricultural purposes, when protected against the overflowing waters of the Mississippi, is inevitable. The negro population, resisting the malarious influences of lowland clearings, and tempted by good wages and an abundance of food, will be drawn to them to furnish the labor. The movement has already set in during the last few years, and must increase as the colored man comes in competition with the labor of the increasing white population which is taking possession of the healthy upland districts.

With the growing demand for agricultural land following the slow but swelling influence of immigration, the hardwood forests of the valleys of the higher water-level and their terraces and the flanks of the bordering region are equally doomed. Though of less extent as resources of our hardwoods, these forests are of great importance, harboring a still greater variety than the alluvial forests. Preferring the warm and light soil in these districts, the Tulip tree, the White Oak, the White Ash, the Black Cherry, the Black Walnut, are found, in addition to the trees growing in the damp bottom lands, and to these could be added many others of smaller size and less value, as the Beech, Basswood, Butternut, Mulberry, Red Elm, Ironwood, Dogwood and Cucumber tree. The impending denudation of these valleys and of the elevations about them involves the greatest danger consequent upon the destruction of the forests by altering climatic conditions and affecting injuriously the stages of the rivers throughout the different seasons of the year.

The hardwood forests of the more or less broken uplands in connection with farms have in great measure lost the character of the high forest. Deprived of their larger timber, opened to the tramping and browsing of cattle and the visitations of fire, the remainder of the tree-growth presents an unpromising appearance, and in many localities, the second growth is supplanted by Coniferous trees. Immense damage has been done by clearing the steeper and more broken lands and the ranges of hills. Deprived of its productive crust, the bare subsoil of these hill lands, torn into deep ravines, presents a repulsive sight suggestive of barrenness and neglect. Raging torrents after every rain rush unchecked down the declivities, eating deeply into them, carrying the soil down the valleys, obstructing the beds of the rivers and their estuaries.

The timber growth of these upland forests consists of many species of Oaks, as the Black Oak (*Quercus tinctoria*), Post Oak (*Q. obtusiloba*), Spanish Oak, Red Oak, flourishing in a dry, light soil, the Tanbark Oak (*Q. prinoides*), Chinquapin Oak (*Q.* *prinoides*), and Scarlet Oak (*Q. coccinea*), found principally on the rocky regions of the mountains. The Mockernut, Pignut and Bitternut Hickories, with the Chestnut and Tulip trees of inferior size, make up a large part of the tree growth. On the table-lands of the coal measures in Alabama, forests of this nature almost in their primeval condition extended over seven thousand square miles. These forests, fifteen years ago scarcely invaded by the small clearings, have, since the beginning of the new industrial era, become of great importance owing to the wealth of coal and iron buried beneath them, furnishing the required supplies of timber and fuel. These forest lands are now much in demand by immigrants, who, by perseverance and industry, make the soil, once considered too poor for cultivation, bring forth profitable field and orchard crops which find a ready market in the growing centres of mining industry which have lately sprung up as by magic in this region. If they are not protected against the destructive influences bearing upon them with increasing intensity as the settlement and development of the country progress, and if the needed care is not extended to the younger growth, the deterioration of these immense forests is destined to proceed surely and steadily to the same destruction to which the forests of the more densely populated districts are doomed. *Karl Mohr.*

Acacia decurrens.—Considerable attention is now being given in France to this Australian tree as a possible source of a supply of tanning material. It thrives everywhere on the shores of the Mediterranean Basin and flourishes in the most arid soils. Mons. Levallois, in a report recently presented to the National Agricultural Society of France, states that a sample of the bark grown at Antibes yielded 31 per cent. of tannin, while recent experiments show that a given amount of the bark was sufficient to cure two-thirds of its weight of leather, while a given quantity of Oak bark would cure but one-fifth of its weight of leather. If further experiments, made on a large scale, confirm the value of the bark, *Acacia decurrens* will prove a valuable tree for southern California and our dry south-western region, where good tanning material is scarce. Indeed the only tree of our Pacific forests which produces really good tan bark is *Quercus densiflora*, of northern California, now becoming rare from excessive cutting.

Recent Publications.

Manuel de l'Acclimateur ou Choix de Plantes Recommandées pour l'Agriculture, l'Industrie et la Médecine, par Charles Naudin. Paris, 1887; pp. 565.

This is a French translation, much enlarged and improved, of Baron Von Müller's well known "Select Extra-Tropical Plants," and is published under the auspices of the National Acclimatization Society of France. By far the larger portion of the work is devoted to a descriptive catalogue of extra-tropical, warm-country plants, valuable to man either from an economic or ornamental point of view, and, therefore, worthy of his attention. This is prefaced by a most interesting study of the general subject of the naturalization and the acclimatization of plants. This last the author describes as "the introduction and successful cultivation of plants valuable to man;" naturalization being the spontaneous spread of foreign plants in a country. As a general rule it is only weeds which become naturalized, but two exceptions are given; the Orange which has reverted to the wild types in Florida, and the Mango which now forms a considerable part of the forest growth in the Island of Jamaica. With these might have been included the so-called Japanese Clover (*Lespedeza striata*, Hook. & Arn.), a valuable forage plant now widely naturalized in some parts of the South, and the common Barberry, now as much at home in eastern New England as in any part of Europe.

A few errors and a few omissions will be detected in the catalogue of plants, but these could hardly have been avoided, although in a second edition it is to be hoped that more of the interesting plants of our south-western boundary may find a place, such as the lovely *Chilopsis* and *Cordia Boissieri*, one of the most showy flowering of North American trees, and considered by the Mexicans of great medicinal value. And in such a work, too, the different species of *Acacia* and *Parkinsonia*, the *Olneya* and the *Fouquiera* of Texas and Arizona, cannot be properly omitted.

The *Manuel de l'Acclimateur* is one of the most important contributions to recent horticultural literature, and its value is all the greater from the fact that the author has cultivated many of the plants he describes, especially the Eucalyptus (a genus to which he has devoted many years of study), in the

gardens of the Villa Thuret in southern France, where he has brought together the richest collection of dry-country plants which now exists. It will be specially serviceable to horticulturists in our Gulf States and in California, where there is still so much to be done in the way of introducing valuable plants.

A Manual of Orchidaceous Plants Cultivated under Glass in Great Britain, prepared and published by James Veitch & Sons of the Royal Exotic Nurseries, London.

Two parts of this work, copiously illustrated, have now appeared. They give good promise of an important and valuable contribution to the already voluminous literature of Orchids, especially in their "cultural notes", which no one can so well supply as can the Veitches out of the long experience of three generations of successful Orchid growers. Part I. is devoted to *Odontoglossum*; Part II. to *Cattleya* and *Lælia*, with *Læliopsis*, *Tetramicra*, *Schomburgkia* and *Sophronitis*. Capital colored maps show the geographical distribution of these genera. The fact that the two parts are paged separately and that the figures are not numbered, will make it difficult to refer to this book in other publications.

Handbüch der Coniferen Benennung, by L. Beissner, Inspector of the Botanic Garden of Bonn. Ludwig Möller, Erfurt.

This is a list of all Conifers, hardy or half-hardy, in Germany, and is the result of the conference of a Congress of German horticulturists which met at Dresden last summer under the Presidency of the Baron St. Paul, for the purpose of settling the proper nomenclature of cultivated Conifers. This could not have been a very easy task, but the Congress and its Secretary have prepared a catalogue which, with its full synonyms, its very complete lists of named cultivated forms and its full index, will be found a serviceable aid to the students and cultivators of Conifers. It may be noted that *Thuiopsis* and *Chamæcyparis* are retained as genera and not merged with *Thuya*, and that with less reason *Biota* is also separated from that genus. *Wellingtonia* is retained as a genus for *Sequoia gigantea*. We should hardly have expected to have found *Wellingtonia* turning up again at this late day outside of Great Britain, where horticultural patriotism, or whatever it may be, insists on ignoring the older *Sequoia* for our "Big tree" in spite of all the efforts of botanists. *Taxus Floridana*, *Juniperus Californica* (except as a synonym of another species), *Pinus Cubensis*, *P. glabra*, *P. clausa* and *P. Chihuahuana*, of the United States Flora, do not appear in the catalogue.

Recent Plant Portraits.

Azalea Indica, Leon Pynaert, *Revue de l'Horticulture Belge*, February.

Oxybaphus Californica (*Mirabilis Californica*, Gray), *Garten Flora*, *t.* 1266.

Orontium aquaticum, *Revue Horticole.*, February 16th.

Platycaria strobiacea, *Revue Horticole.*, February 16th.

Phalænopsis, F. L. Ames, *Gardener's Chronicle*, February 18th.

Oxera pulchella, *Gardener's Chronicle*, February 18th; a semi-scandent shrub from New Caledonia, producing immense clusters of pure white flowers. It is closely allied to *Clerodendron*.

Biota (*Thuja*) *Sieboldi*, *Gardener's Chronicle*, February 18th. "A form of the common Chinese Arbor-vitæ, in which the young form of leaf is preserved to adult age, the ordinary form of leaf not being produced, and the whole plant forming a compact barrel or flamed-shaped bush of great symmetry and beauty.

Public Works.

Enlargement of the Park of Atlanta, Georgia.—From the Report of the Park Commission of Atlanta it appears that an effort is being made to enlarge the principal Park of that city by securing some fifty acres of land north of its present boundary. The Park now contains but one hundred acres and is manifestly too small for the growing city. An interesting feature of the report is a classified list of the indigenous plants of the Park, prepared by Mr. A. Sidney Rauschenberg.

A Park for Lisbon.—The first prize of 12,000 francs, offered by the City Council of Lisbon for the best plan for a City Park, has just been awarded to Mons. P. Lasseau of Paris. A second and a third prize of 7,500 and 5,000 francs respectively have been given in the same competition to Mons. G. Duchesne and Mons. Eugène Deny, also of Paris.

Flower Market.

NEW YORK, *March 9th, 1888.*

The supply of cut flowers is heavy, but the general stock is poor. Prices continue to decline with all flowers excepting Orchids. Cypripediums are in more request than other Orchids, because they combine handsomely with green arrangements, Mignonette being much used for this purpose. *Cypripedium Lawrencianum* costs from 75 cts. to $1.00 a flower; *Cattleya speciosissima* and *C. superba* bring from 50 to 75 cts. a flower. *C. Citrina* and *C. Percevaliana* cost the same. *C. Triana* sells for 75 cts. and $1.00 a flower, and *Lycaste Skinneri* brings 40, 50 and 75 cts. a flower. Vandas range from 25 to 35 cts. a flower, with from 4 to 10 blossoms on a spray. *Odontoglossum crispum* costs from 20 to 35 cts. a flower, and there are from 5 to 20 on a spray. *Asparagus plumosus* brings from $1.00 to $1.50 a string, and *A. tenuissimus* 75 cts. to $1.00 a string of 3 and 4 feet in length. Ferns cost from 10 to 50 cts. a frond, *Adiantum Farleyense* being the most expensive. Short stemmed hybrid Roses are selling for $2.00 a dozen. Only selected Baroness Rothschild and Mabel Morrisons are held at $1.00 each. Other excellent hybrids bring 75 cts. The best Jacqueminot roses are sold for $3.00 a dozen and La France for $2.00 and $3.00 a dozen. Puritans cost 50 cts. and American Beauties 75 cts. each. Papa Gontiers run very poor; those selected are sold for $1.00 and $1.50 a dozen, and the ordinary ones are thrown in with Bon Silenes and disposed of for 75 cts. a dozen. Perles, Niphetos and Souvenirs d'un Ami bring $1.50 a dozen, and Catherine Mermets $2.00. Bennetts cost the same. Dutch Hyacinths sell for 15 and 25 cts. a truss; Roman Hyacinths, Lily-of-the-valley, Tulips and Narcissus for 75 cts. a dozen. Specially fine specimens of Tulips and Narcissus Trumpet Major bring $1.00 a dozen. Lilac costs from 25 to 50 cts. a spray. Heliotrope is 50 cts. a dozen sprays. Pansies are 25 cts. a dozen, and Violets $1.50 a hundred. Acacia costs from 50 cts. to $1.00 a spray. Mignonotte from 50 cts. to $1.00 a dozen spikes, and Carnations 50 cts. a dozen for all varieties. *Lilium Harrisii* brings 35 cts. a bloom or $4.00 a dozen. Callas cost $3.00 a dozen. Plants of Spiræa Japonica appear, but no cut bloom is sold as yet.

PHILADELPHIA, *March 9th.*

Delicate tinted and sweet scented flowers are most in demand just now. There have been some elaborate dinner table decorations, where the very choicest flowers have been used during the past week. Orchids and the rarest Roses only are used on these occasions. Boxes of fragrant flowers are frequently sent to friends at this season—more so than at any other. A few morning weddings have taken place during Lent,—a somewhat unusual occurrence for this city. White flowers were used almost exclusively. On one occasion the corsage bouquets were made of Puritan Roses, as was the centre piece, which was a plateau four feet long. Freesias, Roman Hyacinths, and Lilies-of-the-Valley were also abundantly used. Some large and choice Amaryllises are sold at $1 each. Single and double Daffodils are called for in about equal quantities. The double Von Sion makes the most show, but the single varieties are selected by connoisseurs. *Lilium Harrisii*, or as it is called generally the Bermuda Lily, has been in good demand at 50 cts. each. The chaste and delicate Cyclamens, both as plants and flowers, are popular, and seem destined in the near future to take a prominent place in the floral world. Pink Tulips are more used than any other shade. More Lilacs would be used if they could be had, but they are scarce. Plants in bloom, such as Azaleas, and what are known as Spring flowers, sell readily. A limited quantity of white Moss Roses are obtainable at $1 per spray carrying one half-developed bud and several others which have not yet shown color. A few Gloxinias are offered for sale, but they are not in very great demand because they are so easily broken or soiled.

BOSTON, *March 9th.*

The windows of the flower stores are marvels of beauty just now. The display of Roses is especially fine, for at no time of the year are they offered in greater variety or perfection. The various popular hybrid Roses are seen in large quantities, Jacqueminots of course leading, with the beautiful satiny pink Madame Gabriel Luizets closely following, fully as effective in color and almost as popular. Gloire de Paris and Magna Charta are also abundant, but the chief value of these two varieties lies in their easy-forcing qualities, which make it possible to obtain them much earlier in the season than other hybrids. The later kinds are more desirable when they do come. The new Puritan is offered in limited quantities, and when the blooms come perfect, this white Rose is a valuable addition to the list of large flowering varieties. An occasional specimen of that shy beauty, Her Majesty, is to be seen. The color is exquisite, and the flower is of enormous size, but alas! it is odorless. Maréchal Niels are becoming scarce again and the only yellow Rose to be had in any quantity is Perle des Jardins. This and Catherine Mermet hold their price quite steadily, while La France and American Beauty have a downward tendency. Catherine Mermets and Jacqueminots sell at $2.50 to $3.00 per doz. Hybrids bring from $3.00 to $5.00 per doz., according to variety and quality. Other Roses are worth from $1.00 to $2.00 per dozen. Lilies-of-the-Valley and Tulips sell for $1.00 per doz. Daffodils are held at the same price, but they are getting scarce and cannot always be obtained. Violets and Pansies are worth 50 cts. per bunch. Long Stemmed Carnations, Mignonette, Forget-me-not and Heliotrope bring 50 cts. per dozen. Callas are not as plentiful as they were a week ago and are in demand at $3.00 per dozen.